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# **THE POSITIVE IMPACT OF WALKUP FLAT BUILDING TO IMPROVE THE QUALITY OF SLUM AREA**

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Upon the developed country with high people population growth and low economic level, at several big cities such as Semarang and Makassar, slum areas could be discovered. Several inconvenient problems can cause fire and flood hazard. Those problems emerge because of the lack of environmental infrastructure and the social - economic condition.

The theory of infrastructure explains that there is an interactive relationship between physical, social and economical development. Therefore, the developing of social and economical condition can be done by physical development such as environmental infrastructure.

Due to the direct field observation in several low-prize flat building for low-income societies, which have been built closed to slum area, such as in Marisso Makassar, and Sawah Besar Semarang. One can get awareness to investigate, whether the building of walkup flat closed to slum area, can give the significant positive impact and stimulate the improvement and the enhancement of the quality of slum area or not, and how far those positive impacts will be.

Even though staying in the walkup flat is the new experience for the Indonesian people, more and more people can complete the adaptation. Compared to staying in the slum area, there are many advantages, such as the certainty of the healthiness, fire hazard avoiding, and flood hazard avoiding, etc. The advantage can act as positive impact for the slum area, which is closed, or surrounding the flat. In the future, it is expected that there will be a mutual interaction between walkup flat and slum area.

*Key word: Environmental Infrastructure, slum area, and walkup flat*

## **A. Introduction**

The condition of the slum housing in several big cities in Indonesia is a concerning matters to be solved. The increase of the slum house quality is an effort to increase the condition of the ordered, beautiful, and well-structured city plan. The general matter upon the slum housing is upon the existence of the dense building, flammable building material, etc. Moreover, upon the area with the moist tropical climate, the rain frequency is considered high, so that upon the raining time, there is always spot of flooded water caused by the uncertain water flow. The very dense houses and the less of opened space cause the poor air circulation, causing the incomplete sunshine covering that causes the increase of the humidity. The over dense building and the houses that are built chained each other cause the flammable area, moreover the non-existence of the proper environment utility such as drainage, accessibility, clean water, trash corner, etc.

Certainly, there are several methods to increase the quality of the slum settlement; one of them is the construction of walkup flat. Upon the existence of the walkup flat, the development or the tendency of the more densely the slum could be solved by relocating some of the slum dwellers to the walkup flat.

The existence of the walkup flat could provide the positive effect to the around slum house, especially upon the increase of infrastructure quality, such as the fire detection system either active or passive, the clean water providing, the drainage system, the trash recycle system, the environment greening, etc.

The problem upon every area is different; it all depends on the character, situation, and condition. Based upon the direct observation completed in Mariso Makasar and Sawah Besar Semarang, it could be concluded that the problem of the slum area is considered different but there is similarity, such as the density that makes degradation of the land sustaining force and the environment quality. Upon those two territories, there is establishment of the plain walkup flat, so that it is considered important to complete research upon the correlation between the walkup flat and the improvement of the environment quality of the around slum area. To secure the accurate data, certainly, in order to have an accurate analysis needs several years period to complete after the establishing of the rented walkup flat/ *Rusunawa*. However, several prior steps are based descriptively upon the recent phenomena that are observed to recognize the role of *Rusunawa* as the stimulant or motivator for the increasing of the environment quality improvement of the concerning slum settlement.

## **B. The Slum Housing Problem**

The slum housing could be indicated from several aspects, such as: the tight limitation of the society's ability upon the fulfillment of the basic necessity, including housing, which forces them to dwell the improper place in that they are the squatters.

Considering the philosophy of the housing and settlement as the basic necessity of human being after clothing and food, in which it has a strategic role as the educational center to form the character, personality, culture, and young generation future preparation, the improvement of the slum settlement is considered very valuable. According to UN Habitat (2003) "The urban population in less developed regions increase by 36 per cent in the last decade".

The major problem that has been the obstacle of the slum improvement is the relatively dense population and the limited economical capability since they often earn income from the informal sector. This problem affect the quality of life. Kowaltowski (2006): 'Quality of life was related to feelings of security, physical safety, environment comfort.etc.

In order to improve the condition of the slum, it needs to have the improvement of the life standard upon the rise of the income so that it cold improve the self-ability of the society. Thus, one of the methods is by improving the society's income so that they can have the access to the source such as bank. By the cooperation with the bank upon the credit installment, they can manage the money upon the observation and cooperation with the related private or government, since it is so difficult that the problem shall only be handled 100% by the government.

The construction problem upon the slum is the uncontrolled house building expansion, which is without IMB (Building Construction License), breaking the principle of standard building measurement, building coverage, opened space as the public facility, etc. These are dangerous, for the example: upon the fire accident, the fire spreading would be unstoppable, and upon the dirty water, the water will cause flooding spot every time it is raining.

The building condition should be restructured, besides, the infrastructure condition upon the slum is usually problematic and required restructuring. The infrastructure condition is getting worse for the slum that suffers flood and seawater flood in that they are problems to Semarang's downside city, whereas, upon the upside, there are landslides upon certain slum spots, such as Lemponsari area.

The variety of infrastructure that needs to be restructure is various upon every slum. Generally, the infrastructure component that needs to have restructuring is: the street arrangement and the standard building measurement, waste tunnel, trash spot locating, clean water providing, etc.

The evaluation criteria used upon the slum standard are:

Location: the frequency of the flood incident, the status of building ownership, etc.

Population: the population density, the population growth, etc.

Social and economy: the poverty level, the safety standard, under-five infant nutrition status, etc.

Basic necessity: drainage, clean water, trash, etc.

Building condition: the number of slums, standard of health & building comfort.

Komarudin (1997): definite that slum area is very dense area more than 500 people /ha with worst infrastructure.

### 1. Slum in Mariso Makassar.

The slum condition in Mariso, Lette Sub-District is considered poor. The main problem is upon the improper building condition, the building distance standard and the less opened space, and he less of environmental facility  
According to the picture



Fig: 01  
The slum of Mariso, The jammed water flow, Flood hazard.  
(source: Gagoek.H)

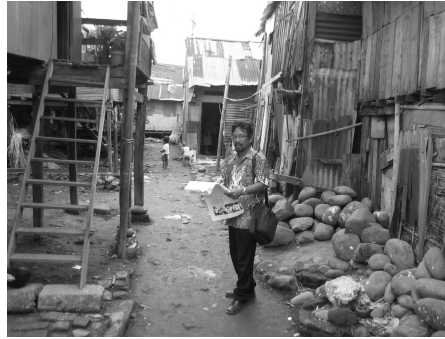


Fig: 02  
The slum of Mariso. Very dense building with the less environmental utility with the muddy street and puddle of water upon the raining time.  
(source: Gagoek.H)

### 2. the Slum in Sawah Besar

the slum condition in around Rusunawa in Sub-District of Sawah Besar could be mentioned as poor. It is also happened upon the slum condition in Sub-District of Tambak Redjo. The major problem in there is flood and the seawater flood. According to the interview with the people of Sawah Besar and Tamakrejo, the annual flood is so disturbing that causes significant material loss. The slum condition is upon the picture:



Fig: 03  
The slum upon the southward of *Rusunawa* Kaligawe.  
(source: Gagoek.H)



Fig: 04  
The slum upon the southward of *Rusunawa* Kaligawe.  
(source: Gagoek.H).

### C. *Rusunawa* as the alternative of the quality improvement of the Slum

*RUSUNAWA* is expected to have function as the prior stimulant to solve the growth of urban slum area upon the context of urban renewal.

People who receives privilege to stay in *Rusunawa* is the low-income one, considering the concept of *Rusunawa* is rented flat. Therefore, it is expected that upon their staying in there, the income could get increased, so that upon the period of 4 years, they could buy the house upon the subsidized governmental credit installment facility themselves. Since the concept of *RUSUNAWA* (Rented walkup flat) so that it is different from *RUSUNAMI* (Owned walkup flat), thus the renter of *Rusunawa* is temporal. With the system, the function of *Rusunawa* is expected to be able to solve the problem of the low-income society out of the slum. So wrote Couch (1990) ;" There was a low level of knowledge about the nature of the housing problem and about appropriateness of solution. It was causes of cholera etc and related diseases began to be understood and the importance of clean water supply, proper drainage and building ventilation appreciated."

#### 1. *Rusunawa* in Marisso Makassar

Near to the slum of Mariso, there has bee an establishment of *RUSUNAWA*, this Building is a row of flats located in the waterfront region of Makassar, built in the year 2006-2007 as part of the governmental subsidized housing project focused on the providing of new houses for the low-income society. Upon the first phase, there were 3 blocks with 228 rooms established. Absolutely, the amount is still far from the necessity. Nevertheless, considering that the *Rusunawa* is the first one in Makassar, the existence of *Rusunawa* is very important, especially upon the introduction to the low-income society in order to familiarize them with the living condition upon the walkup flat, since besides having many disadvantages, it is also having advantage compared to living upon the slum, which is not even completing the health requirement. For the next phase, there would be other 228 rooms by Local Budget of 44 Billion IDR. Recently, the established *Rusunawa* has been inhabited.



Fig: 05  
*Rusunawa* of Mariso during under construction. Viewed from Tanjung bunga-GTC.  
(source: Gagoek.H)



Fig: 06  
*Rusunawa* of Mariso during under construction. Viewed from the slum of Mariso  
(source: Gagoek.H)



## 2. *Rusunawa* in Sawah besar Semarang

In 2006, there was the establishment of 3 twin blocks consisted of 228 flats of 21 type. *Rusunawa* in Sub-District of Sawah Besar called as “Kaligawe *Rusunawa*” is also surrounded by slum area such as the slum of Kaligawe, Sawah Besar, and Tambakrejo. Next in 2008, there was the establishment of 4 twin blocks upon the capacity of 384 units of 24 type. So that recently, there have been 7 twin blocks that are expected to be used by 600 families, however, this *Rusunawa* is still empty. It is not caused by less of the interest but it has not been finished completely. In the flood season, the yard of *Rusunawa* is used as the evacuation spot for the people of the slum.



Fig: 07  
The first phase establishment of  
RUSUNAWA of Kaligawe.  
(source: Gagoek H)



Fig: 08  
RUSUNAWA of Kaligawe upon the slum  
as the background.  
(source: Gagoek H)

## D. The Positive Impact of *Rusunawa* toward the environment infrastructure

### 1. *Rusunawa* in Mariso as the stimulant/ motivator toward the improvement of environment infrastructure in the surrounded slums

by considering one mission of *RUSUNAWA* to reduce the city slum, the establishment of *RUSUNAWA* of Mariso is considered as the correct method, moreover Mariso territory lay upon the shore, in which it is not anymore by the existence of main road established by the system of sea reclamation of 1 kilometer from the territory of Tanjung Bunga to the elite territory of Gowa Trade Center (GTC). The establishment of spectacular city would be more appropriate by the method of reducing the city slum.

The fisherman's family in the slum is expected to move to *Rusunawa* to decrease the population growth in the slum, which will increase the environmental facility.

By the existence of *RUSUNAWA* in Mariso, the environmental facility in Mariso, such as: the necessity of clean water, accessibility, management of trash, electricity, and water flow will be put in priority.

It is expected that by the future time, the people dwelled in *Rusunawa* will have the consideration of the importance of the healthy environment, so that after they leave the place they will not live in the slum anymore.

### 2. *Rusunawa* in Sawah Besar as the stimulant/ motivator toward the improvement of environment infrastructure in the surrounded slums

Kaligawe *Rusunawa*, like *Rusunawa* of Mariso that lies near to main road from the sea reclamation, lies near to the free way of Semarang city, so that both of them participate to increase the city view, since they can be seen from the main street.

Kaligawe *Rusunawa* lies near to the area that is commonly flooded, so that the existence is considered advantageous for the surrounding slum.

The development of Kaligawe *Rusunawa* could be made as the example for the surrounded upon the importance of the effort to solve flood, and the providing of clean water by *Rusunawa* could be used as the example to follow by the surrounded.

The system of the story building could also wake the society upon the surrounded environment on the importance of stage house in order to avoid the damage caused by the high rise of the flood.

The trash management in *Rusunawa* could also be followed by the surrounded if it is applied correctly.

The positive effect of *Rusunawa* toward the improvement of environment infrastructure will be more accurate and certain if it is used already, thus, the research upon *Rusunawa* after it is dwelled will be very advantageous to acknowledge the positive effect of *Rusunawa* toward the quality improvement of the surrounded slum.

## E. CONCLUSION

The problem of slum in several big cities in Indonesia has been dilemma. If it is let free, it will be difficult to achieve ideal condition. The dilemma is getting increase since for the migrant the interest of cheap settlement for them when they go to the city attracts them, thus, the growth is getting more crowded. To renovate it to fulfill the ideal condition, it needs to have big fund, whereas the capability of the society is still poor, so that it is still dependent to the government's subsidy.

The effort to reduce the slum level has been completed through several projects such as KIP, PJMP3KT, PDM-DKE, etc. One of the efforts is to establish plain rented walkup flat. Although, many parties are doubtful upon the appropriateness system of *Rusunawa*, upon the reason that people still do not use to live upon the story building. However, if it is observed from the correct proficiency study and *Amdal* study, the *Rusunawa* establishment as the effort of urban renewal is very acceptable, and the low-income people needs to adapt to the transition.

It is expected from the establishment of the plain rented walkup flat that it is as the stimulant/ motivator toward the improvement of environment infrastructure in the surrounded slums, at least upon the hazard of fire, necessity of opened space, clean water, accessibility, management of trash, electricity, and water flow.

Especially for Kaligawe *Rusunawa*, the positive effect is that the society realized that the place could be used as the evacuation spot during the flood, so that they can realize the importance of the story building.

The fact that houses upon the slum established near each other cause the slum flammable, and make difficult for the rescue from the fire department, so that by the existence of *Rusunawa*, the spot of slum could be restructured, such as the providing of the opened space and the road widening.

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